MARINE REVIEW.

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Consolidated With a Capital of Five Millions.

The Cleveland Iron Mining Company and the Iron Cliffs Company, two of the largest iron mining companies in the Lake Superior district—they produced 556,000 tons of ore last season—have about completed arrangements for a consolidation. The Iron Cliffs Company has agreed to the consolidation through its trustees, who have full charge of its affairs, and, as shown by the following circular and reference to the letter that accompanies it, the deal is practically settled:

CLEVELAND, O., May 1st, 1891.

To the stockholders of the Cleveland Iron Mining Company, and to holders of trustee certificates for Iron Cliffs Company stock: Gentlemen:—The trustees holding the legal title to the 14,005 shares of the capital stock of the Iron Cliffs Company, purchased by syndicate in February 1890, (which syndicate all the stockholders of the Cleveland Iron Mining Company were offered an opportunity of joining), under the powers conferred upon them by the trust and subscription agreements, and with the approval of the subscribers owning a majority interest therein, and also with the consent of those owning a large majority of the stock of the Cleveland Iron Mining Company, have perfected the following plan for the combination of the two companies, which plan has greater advantages than a consolidation, under the Michigan law:

A corporation is now being organized, under the laws of the state of West Virginia, to be known as the Cleveland-Cliffs Iron Company, with a capital of $5,000,000, divided into 50,000 shares of $100 each. The stock of the Iron Cliffs Company, held by the trustees, will be transferred to the new company, and one and one-fourth shares of its stock, full paid and non-assessable, will be issued in exchange for each share of the Iron Cliffs stock, to be distributed among the holders of trustee certificates, on the surrender of such certificates; that is to say, the Iron Cliffs stock will be exchanged on a basis of $125 per share for the stock of the new company at par, being a total valuation of $2,500,000 for the entire stock of the Iron Cliffs Company.

Stockholders owning a lage majority of the stock of the Cleveland Iron Mining Company have already agreed to transfer their stock to the treasury of the new company, on a basis of $20 per share, and to receive in exchange therefor the stock of the new company at par; that is to say, for each five shares of the stock of the Cleveland Iron Mining Company so transferred, one share of the new stock, full paid and non-assessable, will be issued, making a total valuation of $2,000,000 for the entire stock of the Cleveland Iron Mining Company. An opportunity is hereby given to all other stockholders of the Cleveland Iron Mining Company, to exchange their stock for the stock of the new company, on precisely the same terms.

The Cleveland Iron Mining Company and the Iron Cliffs Company will not be dissolved, but as the stock of each will be owned by the new company, its capital stock will represent the stock of the two constituent companies, transferred to its treasury, and the respective values of $125 per share for the Iron Cliffs, and $20 per share for the Cleveland, are adopted as equitable, for the reason that they were the market values of those stocks, at the date when the purchase of the Iron Cliffs stock was made. Such an arrangement will insure the joint and harmonious working of the contiguous properties of the two constituent companies, and will inure to their mutual advantage in many ways, chiefly in the saving of administrative expenses, in the elimination of competition, in advantages in purchasing supplies and in transactions with railroads and other transportation companies; a large corporation, in these days of consolidations, having more power and influence than a small one.

For your information we would state that the Iron Cliffs Company has four producing mines, and also a large undeveloped acreage in the mineral belt, and in the year 1890 it produced from its mines 295,000 tons of iron ore, and from its furnaces 25,000 tons of charcoal pig iron, and made a net profit. (The figures that appear in the circular are for private information. It is enough to say that the company is paying dividends and has a good surplus.)

The acquisition of the entire capital stocks of the two companies by the new company will require $4,500,000 of its stock at par, thus leaving unissued $500,000 in its treasury, which will enable it to acquire other property and engage in other enterprises, favorable opportunities having already presented themselves.

In addition to the above advantages, the new company will have much more liberal corporate powers, and greater facilities than are now possessed by either of the constituent companies, and it is therefore expected that its stock can be made more valuable and profitable than that of either of the other companies under their present organization; and that through its cash receipts, obtained from dividends on the stock in its treasury, and from its other earnings and resources, a surplus can be accumulated, which will enable it to pay a regular quarterly dividend on its stock, thus giving it a stable value in the market, independent of any temporary depression in the iron trade.

As it would be inequitable to make this exchange of stock, at the above figures, after the stock of the new company has enhanced in value, this opportunity for transfer will not be held open later than May 25th, 1891.

E. R. PERKINS.
J. H. WADE, JR.
WM. G. MATHER, trustees.

The circular is accompanied by a letter from T. P. Handy, E. R. Perkins, Samuel Mather, Peter White, J. H. Wade, Jr., William G. Mather and E. R. Perkins, executor for the estate of Selah Chamberlain, in which approval is given to the plan and it is recommended that the stockholders of the Cleveland send their stock for exchange. These gentlemen are all heavy owners of Cleveland stock. In fact, Mr. W. J. Gordon and the Hales, of Cleveland, seem to be the only other holders of any large quantity of the stock whose names do not appear in the letter of recommendation.

Prices on the Best Grades of Ore.

It has been said in connection with the few sales of ore already made for delivery during the coming season that they will have no bearing on prices for the Lake Superior product in general, the claim being made that unfavorable "conditions" surround the sales. This is not true, as there are no conditions other than one that has become a custom in the trade of late. The sales of the Republic company are of most importance, and certainly that company will loose nothing by an understanding with its customers to the effect that if any contracts were made at a price lower than the figure established a few weeks ago—$5.50 for No. 1 Specular—they should receive the benefit of the reduction on such ore as had not been delivered. It is well known to the trade that the demand for this ore is such that there is not enough of it to go around and there was accordingly no risk taken in the sales. These sales certainly have an important bearing on the market for the best grades of ore.

Suggestions for Entering Racine Harbor.

Geo. Breckenfeld keeper of Racine life saving station furnishes the following information: "Vessels loading coal for Racine should not load over 13 feet. Five hundred feet east of the north pier, out side of the harbor, is a sand-bar which runs north and south across the entrance of the harbor. On the north end of this bar is only 14½ feet of water, when a little past the range of the south-pier you will find but 11 feet. On entering this harbor, which for deeply loaded vessels only can be done in fine weather and smooth water, keep well to the north, say in the range of the north pier. Keep the north pier pretty close until abreast of the south pier, then keep a little to southward of the middle of the river, until abreast of the Goodrich steamboat depot. From there take the middle of the channel all the way up the river."

"To run a 12,000 ton ship across the Atlantic at an average rate of twenty-four knots an hour," says C. H. Cramp, "which, it is said, is a part of Mr. Corbin's scheme, would necessiate the burning of about double the amount of coal consumed by the City of Paris, and the capacity of even a 12,000 ton ship would hardly allow of her carrying that enormous quantity. There would positively be no room for passengers or cargo."

The Freight Situation.

It is only necessary to note that a few boats have been chartered at 2 cents for wheat from Duluth to Buffalo—equal to 74½ cents on ore—to show the depressed condition of the freight market. The lowest figures as yet reached on ore, single trips are $1 from Ashland and 65 cents from Escanaba, but there is no demand, even for the future, at these rates. Many boats are seeking loads at the reduction and a few days will certainly see these figures lowered although it does not seem possible to carry freight on such charges. A weakening on the part of engineers, who have all along refused to accept reduced wages, has placed, the entire ore fleet in a position to move, and tonnage is being forced onto shippers who do not want to bring down ore until the differences among the dock laborers are settled. Freights on soft coal are unchanged and vessels are in good demand at 50 cents to the head of Lake Superior, 60 cents to Milwaukee, 45 cents to Escanaba, 55 cents to Portage, 35 cents to ports on the rivers and 30 cents to Detroit.

The New Appellate Court.

The announcement from Chicago that District Judge Blodget will be a member of the new appellate court for the district comprising Illinois, Indiana and Wisconsin is certainly premature. Justice Harlan and Circuit Judge Gresham will, of course, be associates in the new court, but the third member has not been appointed for the Chicago court any more than in other districts. Judge Jackson, who with Justice Brown and a third member yet to be appointed, will preside over the Cincinnati court, taking in Ohio and Michigan, is now hearing appeal cases in Detroit, and it was thought that the Sheffield-North Star case would be among them, but by agreement on the part of judge and attorneys this case will be heard before Judge Jackson with the Merrick-Ranney case on June 16 in Cincinnati.

The Lumber Trade.

Although some very large sales of lumber have been reported recently from the Saginaw district, there is not a great deal of encouragement in the trade for lumber carriers. Freight rates are unchanged, the basis being $1.50 from Bay City to Cleveland and $1.75 to Buffalo. Saginaw, of course, pays a shilling above the rate. With the Cleveland strike of lumber shovers at an end, the movement to Lake Erie shows some increase, but there is little profit in present rates. In the Lake Michigan trade matters are much worse than they were early in the season. On a few loads of dry lumber going around from Oscoda to Chicago $1.75 was paid during the past week. The Chicago market is very dull. On account of the stagnation the White & Friant Company delayed shipment of 4,000,000 for the delivery of which they had a contract with Leatham & Smith. The latter company will be compelled to find other work for their boats for the time being.

A great deal of interest centers in the trade between the head of Lake Superior and Chicago. Buffalo is receiving very little lumber from the head of the lakes this season, probably on account of expectations of a big demand in Chicago on account of preparations for the Worlds Columbian Exposition. The propeller C. H. Bradley and consorts Mary Woolson, Brightie and Goshawk, have been placed for the season in the Lake Superior-Chicago trade but the rate is not given out. It was said that the Donaldson and barges had been placed in the same trade but this was a mistake. The rate on single trips opened at $2.25 but it is said to have since been shaded a shilling. There will be a big movement in lumber from Lake Superior during the entire season. Among estimates on the cut in the Ashland district for the season are: Cranberry Lumber Company, 25,000.000 to 27,000,000 feet; C. S. Murray & Co., 14,000,000; Peyton, Kimball Barber, 19,000,000; Superior Lumber Company, 16,000,000; Scott & Holston, 8,000,000; Welliston, Charnley & Co., 6,000,000. These concerns are endeavoring to get reduced rail rates to the east in expectation of largely increasing their business.

Two Important Ship-Railway Projects.

From the manner in which engineering societies in this country and Canada are becoming interested in the proposed ship-railways across the lower Michigan peninsula and across the pininsula between Owen sound and Lake Ontario, it would seem that something definite in the way of legislation regarding these projects may soon be expected. The people of Toronto, and in fact all Canada, are especially interested in the Owen sound—Lake Ontario connection. The paper recently prepared by E. L. Corthell, C. E., of Chicago, entitled "An Enlarged Waterway Between the Great Lakes and the Atlantic Seaboard" is being discussed in all of the lake cities. At a meeting of engineers and capitalists recently held in Toronto great enthusiasm was caused by a consideration of the data presented by Mr. Corthell. Toronto would derive a large increase in shipping from such an improvement.

Gen. F. L. Hagadorn, an army engineer of some prominance who has given a great deal of attention to ship-railways, takes up the subject in a recent issue of one of the Detroit papers. He also refers particularly to that part of Mr. Corthell's paper relating to ship-railways from Owen sound to Lake Ontario and across the lower Michigan peninsula from Michigan City, Ind., to Toledo, O., this latter making a direct line for lake propellers from Chicago to Buffalo. He says: "As early as 1837 the project of building a ship-canal around the falls of St. Mary's river was discussed in the legislature of the state of Michigan, and the matter was brought before congress in 1840, but was earnestly opposed, one of its opponents—the distinguished Henry Clay—speaking of it as "a work beyond the remotest settlement in the United States, if not in the moon." This, of course, produced a laugh, and it was not until twelve years after the general government donated 750,000 acres of public lands, and a right of way 400 feet wide, to enable the state of Michigan to undertake the work. (Henry Clay had laughed the proposition out of twelve years growth.) And every one will remember the opinion of the naval experts who were called upon to report upon the model of Ericsson's Monitor. Take it home with you, said one of them, and worship it. You may do so without breaking any of the commandments; for it is not in the likeness of anything that is in the heavens above, or in the earth beneath, or in the waters beneath the earth. It has been said that no ship-railway is at present in operation; but it should be added that a very important one is now under construction, and will probably before long be carrying ships weighing 2,000 tons 17 miles overland across the isthmus of Chignecto between Nova Scotia and New Brunswick. For the last 60 years the necessity of a ship canal across the lower Michigan peninsula has been repeatedly urged, and a survey and estimate has been made for the route from Benton Harbor, Lake Michigan, to a point near Monroe, on Lake Erie, a distance of about 160 miles. This would require sixty-five locks and the crossing of nineteen railroads, at a cost of $138,405,432. A ship-railway over the same peninsula fully equipped for service, will cost not over $39,000,000.

"In 1867 congress directed a survey to be made for a ship canal around the falls of Niagara. The work was performed by Col. E. C. Blunt, U. S. engineer, his project being for a canal of 14 feet depth; and twenty.one years after(1888) congress ordered another survey for a channel sufficient for ships drawing 20 feet. The route was 25 miles long and the estimate $23,617,900. This was again revised with a larger canal prism and an increase of rock excavation, the total estimste being $35,000,000. The estimate for a ship-railway over the same route less 6½ miles, to accommodate vessels of 20 feet draught and 5,000 tons displacement, is $10,731,613, fully equipped. These figures are given to show the comparative cost of railways and canals over familiar routes, but the comparison will hold good in all cases, and under all circumstances, the variations, if any, always in favor of the railway. The comparative rate of speed is also a matter to be taken into account. On a ship railway the speed can never be less than 10 to 15 miles per honr. On the Suez canal it is limited to 5 miles and on the Welland to 4, but it scarcely ever attains to these on either."

Very comfortable passenger service between Cleveland and Buffalo has been provided by the steamer Lora, which leaves Cleveland every Wednesday and Saturday evening, making the trip to Buffalo in 15 hours. Joseph Gorman is master.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 210 So. Water Street, CHICAGO, Ill., May 14.

In a week the new Republican city administration has replaced nearly every bridgetender on the Chicago river. The sweep has been the most complete one ever made by any incoming administration. Men who have served for twenty or thirty years under Democrats and Republicans have had to go. Petitions of vesselmen to save a few whose services had been particularly satisfactory, availed nothing The new men are Republican ward workers who are hungry and must be fed. Most of them don't know an iron steamer from a sand scow. Of course some bridges will be knocked out of shape before the new tenders learn a thing or two. Vessel captains will be denounced right roundly for running into bridges that run into them. It might be a good thing for masters to be particularly careful for awhile until the new tenders find out which way they are to turn the bridge levers. Mayor Washburne has had no time to see the vesselmen who want to interview him about Canal street bridge When he gets through with the horde of office seekers now filling the city hall, the vesselmen's committee will lay their case against the bridge before him and endeavor to have him take steps for the bridge's removal. The property owners who are most benefited by the construction of the bridge are now the most obstreperous about giving way to the river traffic when boats are unloading at their docks. There is said to be some of the finest specimens of the genus hog among these dock owners ever seen outside the stockyards.

All the forebodings of the early spring about grain freights have come to pass. The bottom has gone, and there is no hope of any immediate improvement. Grain is going out faster than it comes in, which tends to make the outlook worse day by day. Nothing less than 1⅛ cents on corn to Buffalo, it is said, has been accepted. I don't know about it. I am inclined to think that some boats have come nearer to an even cent than that. Many owners have instructed their agents not to take less than 1¼ cents, and their boats are virtually laid up. The story of the decline is a short one. There were more vessels than cargoes.

A steamer lay at a north side coal dock the other day, its stem just shutting off the passage of another steamer to her dock. Work was over for the day. "Drop ahead fifty feet, and let me by," said the captain of the incoming boat.

"Steam is down," was the reply.

"Then my tug will pull you ahead, and put you back again when we are by."

"My crew is all gone."

"We've plenty of men. We'll put them aboard aud move you all right."

"Well, you can't move me. I'm at my own dock. Take care of yourself."

The new arrival did not lose his temper. He asked the stationary captain his name and it was given.

"You belong to the E. M. B. A. I believe I have heard of you as a member?"

"Yes."

"Well, captain, you'll move that boat, or you'll get out of the association. I've got a clear case against you."

The boat moved.

The Oak Leaf is to be lengthened 30 feet and be given steel arches. That is one way to treat a boat that people say is out of date. But the Oak Leaf is good for many a year yet, and will earn enough money to pay for herself. There is far worse property on these great lakes than the lumber schooners that have not outlived their usefulness.

The Cleveland joker that sold the new reporter with the story of a boat going into the grain trade between Buffalo and Kingston did a neat job. It reminded me of the old fellow that went around to the legislatures of Wisconsin and Michigan two years ago and secured the passage of resolutions favoring a ship canal from Bay de Noque to Lake Superior. He came to Chicago and sent to the Tribune for a interviewer. I went over. He told of the great things a ship canal between Lake Michigan and Lake Superior would do for lake commerce. He insisted that no locks would be required, and got mad when I told him such a canal would drain Lake Superior, or else the current would be too swift to be navigable. "Why, young man just think of the immense grain trade that would spring up between Duluth and Chicago! Then consider the immense coal trade that would extend from Chicago to Lake Superior, instead of Lake Erie ports!" It was a part of his speech before the granger legislatures. When I suggested that the grain trade between Duluth and Chicago would never amount to much, he called me a fool. The old fellow is still around Chicago. He looks rather seedy these days, but the canal across his tract of worthless land is not yet cut.

Frank Kirkham returned, Tuesday, from a trip through northern Michigan and Wisconsin. He says the lumber product will be large, as the winter was favorable for logging operations.

The Lake Superior line is not always going to be content with its fleet as it now exists. Before a year goes by, it is likely that the construction of a new fleet will be commenced. The present boats are the best of their class, but they have not the speed of the more modern lake craft. It is probable that the result in the construction of the Virginia will have something to do with the style and speed of the steamships to be built for Lake Superior service. It can be depended upon when Leopold & Austrian get to building, they will not be behind the record.

I wrote last week that the Graham & Morton line between Chicago and St. Joe was preparing to make a ripple in transportation to Michigan points. The announcement is now made as to what it will be. Arrangements have been closed with the Chicago & West Michigan railroad for a fast steamboat express between St. Joe and Traverse City, to run in connection with the City of Chicago. The steamer will leave Chicago at 9:30 a. m., and be pushed at full speed across the lake. When she arrives at St. Joe the steamboat express will be alongside the dock. When passengers are taking dinner fast freight destined to northern Michigan points will be transhipped directly to four baggage cars on the steamboat express. Grand Rapids will be made in seven hours from Chicago, and Traverse City in the evening. There the boat will run alongside one of the Hannah line of steamers by Mackinaw and intervening east shore points. For Chicago the same close connections will be made, passengers reaching here on the City of Chicago in the morning. Rates by the new route is considerably lower than by its competitors. The new arrangement shows strikingly the close relations constantly growing between the railroad and the steamboat lines. The Goodrich people with two magnificent steamers on its east shore run is in a fair position to combat the plans of the St. Joe route. With the Atlanta and City of Racine they ought to hold their own. It is likely they will retain all their night business to Grand Rapids while day travelers will go by the Graham & Morton line, instead of by rail. By the way, the remodeled City of Chicago is said to be a far better looking boat than she was last season. The fourteen feet added to her amidships are given up to two fine club rooms, which add greatly to the comfort of travelers. G. S. Whitslar, general passenger agent of the line, says the time to Michigan points is going to be shortened an hour from that ever before made, and some of this gain is going to be made by the paddle wheels of the steamers. A race between the City of Chicago and the Virginia would end a lot of good-natured bluffing between Mr. Whitslar and John Singleton, the Goodrich general passenger agent.

Capt. J. L. Higgie, president of the Vessel Owners' Towing Company, years ago made fortunate real estate investments, which are caught in the boom and boosted far upwards. I venture the statement that his real estate will pay him better than his tugs. In fact, his profits in realty are said to be counted in five figures.

Capt. W. M. Egan is about the coolest of the vesselmen in these days of sinking freights. He takes life leisurely, shows no worry, though freights be low. I notice, however, that when he has a boat to charter he keeps the weather eye out as sharp as any of them.

The New Wheeler Company—Shipyard Matters.

Special Correspondence to the MARINE REVIEW.

WEST BAY CITY, Mich., May 14.—Mr. Wheeler will say nothing about the plans of the reorganized company, which is to engage in a large variety of work, nor will he say whether there are any new stockholders in the concern. There have been many rumors regarding the matter and such names as H. W. Sage and W. W. Crapo, president of the Flint and Pere Marquette Railway Company, have been mentioned as new stockholders in the company. Another rumor is that the Michigan Car Works, of Detroit, had partially made arrangements for establishing a branch shop here and that they were interested in the new deal at Wheeler's. If they ever had any such intentions they are probably now declared off and the most plausible story is that nearly all if not all of the new stock is taken by those already interested in the company.

The City of Berlin, the first of the "Big Four" to be completed, was launched from Davidson's yard last Saturday afternoon. Two more of the quartette will go into the river this week, one Thursday and the other Saturday afternoon. The fourth and last will slide in the following week. Captain Davidson will not admit that Schlesinger is out of the deal, adding that he has not yet closed the matter satisfactorily to himself. A schooner for the Davidson Transportation Company will be launched from the Davidson yard the last of the month, and also a small fishing tug for Alpena parties. This closes up the work for the season and it is probable that nothing more will be done at the yard for several months at least.

The Keweenaw left Wheeler's yard, Wednesday evening, in tow of the tugs Justice Fields and Niagara. The name of the Fields has not yet been changed to the Traveller as the owners have not complied with the regulations provided for in such cases. The name of the Chenango will be changed to the Susie Madden, after the daughter of Thomas Madden, who is a third owner of the vessel.

Canadian Canals—Kingston Elevator.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., May 14.—The rebate of canal tolls on grain transhipped at Ogdensburg for Montreal is still agitating forwarders. One hundred thousand bushels has arrived from Ogdensburg at Montreal, and application has been made to the government for the rebate. This will be a test case. If the government refuses Ogdensburg will get no more Montreal grain. The Kingston board of trade has moved in the elevator question, which looks as if they expect to have to compete with Ogdensburg. The board has decided to ask all the boards in this province to cooperate with it, in urging the government to build a 500,000 bushel elevator here, the main object for the request being that vessels which come here from the west, when a break occurs in the canal, are put to considerable expense in waiting for the break to be repaired. It appears as if the matter was going to take a provincial form. On the other hand Montrealers do not want the elevator built, claiming it will not make the St. Lawrence route what it should be. They point out that Americans are carrying wheat from Chicago to New York for 5 cents which shows what the St. Lawrence route has to contend with. They want the St. Lawrence canals deepened, so that larger boats can be used and the cost of carrying decreased. They also want the Welland canal deepened, at this end of which the Montreal boats would meet the large steamers and receive their grain. Kingston would then be shut out altogether. From Port Colborne, which is at this end of the Welland canal, to Montreal, there is no doubt the large barges could carry grain cheaper than the New York barges, which carry only 8,000 bushels each. But as those improvements would cost millions they are not to be expected in this generation.

A leak occurred in the Cornwall canal, Friday night, and it would have been very serious had not prompt steps been taken. Two hundred men were put to work and in twenty-four hours repairs were made and boats allowed to proceed. The tow path is to be widened ten feet in several places.

The propeller Ocean looks very fine after $2,000 were spent on her. She has made one trip to Montreal already. Her master is the popular Capt. Towers.

The steamer Grantham, owned by Capt. Thomas Donnelly, has got the lion's share of the charters thus far. She makes three trips from Oswego to Toronto with coal.

The dock hands are feeling the effects of the N. & T. Railway, which carries ties, timber and lumber past Kingston and Deseronto, notwithstanding Kingston bonused the road to the extent of $75,000.

Freights are very sick at Montreal, where shipments are made for Europe. Many boats in port have been delayed waiting for grain to arrive. Some of them are asking 2s on grain to Liverpool, but in no case has that rate been paid and any chartering done is usually at 1s. 9d. Deals have begun to move slowly, but one of the lines has had the good fortune to let all its deal space for May, June and July. The high price of grain in Canada with the low English markets prevents dealers from taking hold, and as a matter of fact have not as good prospects as they had two weeks ago. The steamships which have arrived have not had full cargoes. Some grain and phosphate is expected soon, but the latter will not help much, as owners want it carried for little or nothing.

Seventeen thousand bushels of peas are being brought here from Cape Vincent for export o Europe. Doesn't it seem strange that it pays to import peas and then send them to Europe?

A strong effort will be made to have the dry d ck finished in July. If it is not completed by that time it will not be of much use until next year.

For years past the United States government kept the revenue cutter Bibb running on the St. Lawrence. She will be laid up at Ogdensburg this year, because, as is understood, she is a bill of expense. She is no use whatever in flitting to and fro among the islands in search of smugglers.

The new steamer, North King, will be placed on the route between Port Hope and Rochester, May 20. She belongs to the Lake Ontario Steamboat Company, and is now being completed at the dry dock of Davis & Son. She is 176 feet in length, 44 feet wide over the guards, 10 feet depth of hold, 8 feet between decks, and 10 feet high in upper saloon. The leading features of her construction are the result of the experience of Mr. Gildersleeve, the manager of the company. The hull lines are by Capt. J. W. Pearce, of Evansville, Ind., engine proportions by Frank E. Kirby, of Detroit, and feathering wheels by Messrs. Logan & Rankin, Toronto. She is sharp and high forward, and the leading idea in the shape of the hull has been to secure a vessel that would make time in all weathers.

The Lehigh Valley Coal Company handled in Duluth district last year 375,000 tons of coal, all of which was received by lake, and Vice President Doty says the amount will be increased 25 per cent. during the coming season. Plans are now being made for the construction of additional docks and the erection of more machinery. Coal supplies were well cleaned up when the first boats arrived and a busy season is expected in this line.

Affairs in Admiralty.

COLLISION IN A FOG.

A case that went from the district and circuit courts, southern district of New York, to the supreme coure, and in which a decision was reached recently in the high court was that of the owners of the propeller Nacoochee against Edward S. Mosley and others. The propeller, in a fog, on a course N. ½ E and running 7 knots an hour, overhauled and passed 200 or 300 yards to the eastward of the schooner Lizzie Thompson, on a course N. N. E. Within half an hour, and after she had crossed the schooner's course, cries of distress were thought to be heard on the starboard beam of the steamer, and she swung around to a S. E. course and ran at half speed, about 7 knots, keeping a bright lookout ahead. Soon the schooner was discovered through the fog on the starboard bow and about 500 feet away, and the engines were reversed and in 12 seconds were going full speed astern, but the schooner was struck on the quarter, about ten feet forward of the taffrail, and sunk at once. It was shown that when the steamer was going ahead at half speed, and the engines were reversed, she would still forge ahead from 600 to 800 feet. The court held that as the steamer had reason to expect the schooner's presence ahead of her, and as she could not stop within less than 600 or 800 feet, while a vessel could be seen through the fog only about 500 feet, her speed was excessive and she was to blame for the collision. The schooner was not in fault for keeping her course and not porting her helm as soon as she saw the steamer bearing down on her, for, even if it were an error of judgment to hold her course, it was an act resolved on *in extremis*, and a compliance with the statute. The fact that the schooner had but one lookout, and that he was also engaged in blowing the fog horn, does not put her in fault, as there was nothing to show that the one duty interfered with the other, or that he did not sight the steamer as soon as possible.

A decision recently given out by the United States district court in New York would indicate that steamers can not run through rivers and narrow channels at a rate of speed that will disturb boats lying at docks. On June 26, 1889, a lighter, while lying at a pier in the East river, loaded with sugar, was upset and her cargo lost, and suit was in consequence brought against the steamer Connecticut, the libelant, who owned the lighter, alleging that by the steamer's negligent navigation, in passing too near the piers, at a high rate of speed she created a swell, which caused the accident. The main defense was that the swell which caused the accident was not made by the Connecticut. On the evidence it was held that the careening of the lighter was caused by an extraordinary and dangerous swell made by the passing of the Connecticut too near the piers, at high speed, and that the steamer was in consequence liable for the damage.

On December 13 last, the steamer John E. Potts, which a few days previously had been placed in winter quarters at Debray, was extensively damaged by fire. A survey was subsequently held on the boat, the adjusters fixing the loss at $16,353. The boat was insured against fire in the Sea and Mannheim companies for $15,166 and $5,000 respectively. Suit was commenced in the United States court at Detroit last week by Frank Clark, owner of the Potts, for loss sustained.

Through the Canadian Canals.

David Bell, vessel and machinery builder of Buffalo, writes the REVIEW with reference to the claim that the Mackinaw was the first boat ever taken through the Canadian canals to the seaboard in sections: "In 1866 soon after the close of the war the Chicora a noted and successful blockade runner, almost as long as our large freight propellers, was cut in two at Montreal and brought through the Welland canal to Buffalo, where I put her together. She was then taken to Lake Superior and employed on a mail route from Collingwood to Fort Williams for a few years, but the owner not being on the moving side of politics lost the mail contract, and over ten years ago the steamer was brought to Buffalo where I cut her in two, and transported her in two sections through the Welland canal to Port Dalhousie where I put her together again. She has since been employed in passenger business on Lake Ontario. The operations necessary on the Chicora were of a somewhat difficult and tedious kind from her having a pair of large oscillating cylinders and feathering wheels. The wheels had to be taken off the shaft inboard to admit of passing through the old Welland canal."

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland Iron Mining Company.....	$ 25 00	$ 15 00	$ 16 00
Champion Iron Company.....	25 00	80 00	90 00
Chandler Iron Company.....	25 00	39 00	40 00
Chicago and Minnesota Ore Company.....	100 00	.....	100 00
Iron Cliffs Iron Company.....	50 00	.....	120 00
Jackson Iron Company.....	25 00	90 00	100 00
Lake Superior Iron Company.....	25 00	62 00	65 00
Minnesota Iron Company.....	100 00	68 00	70 00
Pittsburg Lake Angeline Iron Co.....	25 00	145 00	150 00
Republic Iron Company.....	25 00	26 50	28 50
Michigamme.....	25 00	.....	5 00

Representatives of mining interests in the provinces of Quebec and Ontario are greatly disturbed by the proposed mining acts which it is declared will be a death blow to mining business, especially if the royalty features are carried. The mining men of Quebec have petitioned the governor-general-in-council praying for the disallowance of the act. The bill for Ontario has passed its second reading but was vigorously attacked in committee and, as finally amended, differs materially from the original. It now provides that the price of mining lands in the districts of Algoma, Thunder bay, Rainy river, and that part of the Nipissing district lying north of the French river, Lake Nipissing and the Mattawa river, where the same are within 12 miles of a railway, shall be $4.50 per acre: other mining lands to be $3 per acre; for mining lands lying south of the aforesaid lakes and rivers, within 12 miles of any railway, the price will be $3 per acre: when situated elsewhere $2 per acre. To insure speedy development the royalty shall not be imposed upon silver or copper ores mined until seven years from the date of the patent or lease, and for nickel ore four years are allowed before the royalty shall be imposed.

Work on the Huron bay road is still in progress, but what the object of its projectors is still remains a mystery. It starts from the mine yard at Champion, has no depot grounds secured, has a dock that begins at the water's edge, and where great labor and expense will be required so that vessels can be brought alongside. The new road is considerable of a mystery. There is nothing along its line of route to give it support, the timber having been pretty nearly all secured by lumbermen who have been operating in that region for several years past. The road has no connections with other lines, and the real object of its construction is not yet apparant. In time it will be known, and may cause considerable of a fluttering in railroad circles. There is an object, of course, and it aims to accomplish considerable.—Iron Ore.

The Mastodon mine is among the Menominee properties that has sold some ore, the amount being reported at 20,000 tons, which just represents the stock pile accumulation of the winter. The Mansfield has 14,000 tons in stock. New companies are being formed in this district, notwithstanding the dullness. The Buckeye Iron Mining Company, organized at Menominee under Michigan laws, will operate the Fisk mine, west of the Commonwealth mine, known also as the Noyes-Hallet exploration. H. G. Fisk, of Iron Mountain, is president, T. D. Rhodda of Marinette, vice president, and George Muchelson, of Marinette, secretary and treasurer. Josiah Pebbles and other gentlemen of Findlay, O., recently purchased 80 acres from the Sawyer-Goodman Company for $4,000 and have begun exploratory work.

The Vermillion Iron Journal, of Tower, Minn., says that an important twenty years' lease for mining purposes was filed in the office of the register of deeds there recently. The property is described as follows: An undivided one half of the north half of the southeast quarter of section 27, township 63, range 12. The lessor is James T. Gregory and the lessee is Clarence Dennis, both of Ashland, Wis. Gregory reserves a royalty of 20 cent per ton, and the lessee, Dennis, agrees to mine at least 10,000 tons a year, beginning in November, 1892. The property is said to be very valuable.

Ore has been struck in the shaft of the North Pabst, Gogebic range, at a depth of 475 feet. It comes in from the south; dips to the north and east. This is the ore body that was struck by a diamond drill worked from the end of a 300 foot shaft. It was found to be 40 feet through. At the Germania, on the came range, the working force has been reduced about 25 per sent,

Capt. William Sedgwick, W. H. Rood, J. O. St. Clair and George St. Clair, all well known in connection with mining properties on the Menominee and Marquette ranges, have secured control of the Detroit mine, which was shut down a few weeks ago on account of a heavy expenditure of money and a poor outlook in the market.

Iron Ore, of Ishpeming reports 180,000 tons in stock at the four mines forming Schlesinger's Negaunee group. The mines are being wrought with fullest vigor, all the men being given employment who can be placed to advantage. Instructions from headquarters have been to mine all the ore possible, and thus to lessen the cost per ton to the lowest point.

The Chapin has temporarily ceased active mining at shafts A and A 1, in the extreme east end of the mine. The product of the mine at present is about 1,000 tons per day but the daily shipments to Escanaba will be 2,000 tons, the remainder of this amount being taken from the stock pile.

It is again said that the Duluth and Iron Range Railway Company will build an extension to the Canadian border to meet the western extension of the Port Arthur, Duluth and Western. Such a road would develop the eastern Vermillion and Canadian iron ranges.

The Negaunce Herald quotes General Manager Kidder of the Champion as saying his company has on the dock at Lake Erie ports 60,000 tons of last year's product unsold, and the mine managers are disposed to go slow.

The Lake Superior company has a steam shovel that is capable of handing 1,000 tons a day from the stock pile, and a new one, of double the capacity, will be placed in operation shortly.

The Negaunee has about 30,000 tons in stock, all of which, with the exception of a few hundred tons, is a good grade Bessemer.

More Wrecking Appliances.

Working models of a new device for raising sunken or wrecked vessels have recently been exhibited in New York and Washington. The inventor claims that he can raise a vessel of three thousand tons in less than ten minutes time. The apparatus consists of an iron sphere twenty feet in diameter and made perfectly air tight. From six to eight of these spheres are needed for the raising of a vessel of 3,000 tons burden. At the top of the of the sphere is an air valve opening downward into the interior while at the bottom is a valve opening outward. The sphere has a capacity for containing 5,333 cubic feet of air and a lifting capacity of from 500 to 700 tons. The exterior shell is of ste one-quarter of an inch thick, braced latitudinally and longitudi ly. When in use water is pumped into the spheres and they are sunk over the wreck. Their course is guided by chains working from derricks on the deck of the wrecking vessels. Outside is a heavy network of iron bracing enclosing the sphere like a jacket. At the bottom is a heavy iron chain, fastened to the outside bracing, and at the lower end of the chain is a strong double catch hook. A diver is sent down with each pontoon as it is lowered to the position needed, and by descending the ladder he is able to fix this catch hook on some part of the sunken vessel. The plan adopted by the managers of this new system, is to lower two spheres, one at the bow and the other at the stern of the vessel, on the side to which she is listed, and then pump out enough water, supplying the space with air, to right the vessel. Then the other spheres are lowered and placed in position, two at the bow, two at the stern, and two, four or more amidships, as may be needed. Then the pumping apparatus is set at work on the wrecking tug, and it is claimed that the water in the pontoons can be forced out through the outlet at the bottom at the rate of forty barrels a minute, and that in eight minutes the sphere will be filled with air and be floating on the surface of the water. The wrecked vessel is not raised above the water, but is brought near the surface. In this manner the vessel is towed to the nearest port and placed in dry dock.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }

HOMER J. CARR, - - - Associate Editor and Manager Chicago Office, 210 South Water Street.

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St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to **36,203,606** *tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.*

Entered at Cleveland Post Office as Second-class Mail Matter.

THE senate committee on Canadian relations, appointed at the last session of congress, has certainly heard enough of the obnoxious wrecking laws on the lakes to cause an earnest endeavor for a repeal of the laws in both countries. The Canadian government was asked by the last congress to repeal the law after a bill had been passed committing congress to like action as soon as it was annouced that parliment had passed such a measure. To this Canada paid no attention and it was said that two memders of parliament were largely interested in tugs and wrecking apparatus. It is agreed, however, that the United States was the first to begin hostilities in wrecking matters and on this account should be first to make overtures for a settlement. Captains Maytham and W. D. Robinson, of Buffalo, and Mr. P. M. Church of Sault Ste. Marie, gave valuable testimony on the subject to the committee last week.

CLEVELAND will have two representatives in the next congress who have already shown a disposition to renew the efforts of Hon. T. E. Burton in behalf of the lake marine. When the Fifty-first congress adjourned resolutions were passed by both the Lake Carriers Association and Cleveland Vessel Owners' Association thanking Mr. Burton for his endeavor in their behalf, and now it would seem that the two representatives who will succeed him, on account of the state being redistricted, will be equally active among lake members. Hon. Tom L. Johnson has held several conferences with Cleveland vessel owners regarding legislative matters generally, and Hon. V. A. Taylor is interesting himself in the proposed trip up the lakes of the river and harbor committee and other members of congress.

THE Canadian government has finally decided to make the lock in the canal now under way at Sault Ste. Marie 100 feet wide and 600 feet long, with guard gates 60 feet wide at both ends, and facing in opposite direction. This is a wise move on the part of the Dominion government, as it is in line with the policy of increasing the size of the canals below Lake Ontario, and the plans for a canal or ship-railway between Georgian Bay and Lake Ontario, although Canada lacks the wealth necessary to carry on big public improvements, the officials seem to have taken a special interest in the Sault Ste. Marie canal and may yet hurry it to completion in a manner that will be surprising to those interested in the similar new work on the American side.

DISTRICT SUPERINTENDENT DOBBINS, of the life saving service, was surprised to learn while in Washington, that part of the $50,000 appropriated for life saving stations, where lives are really saved, will be devoted to World's Fair exhibition purposes where a crew will play at saving lives. Fortunately, the loss this time does not fall on lake interests. Men like Capt. Dobbins who have the interest of the service at heart are often surprised, and it is to be regretted they are not in position to make their surprise count.

IT IS a little early to make any predictions regarding crops, or the prospects for the lake carrying trade in this line during the latter portion of the season, but the outlook would indicate that the great wheat crop of 1887 will be surpassed in the northwest. There is a big increase in acreage, and everything points to an abundant harvest. It is not expected, of course, that there will be any movement of corn to help the lake trade, but the increased wheat crop may make up for this deficiency.

MR. M. A. HANNA, of Cleveland, says the proposed Lake Erie and Pittsburgh ship-canal scheme is a humbug of the worst kind. The interests which he represents in this part of the country foot up several millions in iron ore and coal mines. ships and iron furnaces, not railways. Who is more capable of judging in such a case.

The Marking of Vessels' Names.

Collectors of customs at several points on the lakes have created a great deal of confusion, through a want of knowledge of the provisions of the law passed by the late congress providing for the marking of vessels' names. Although it is settled beyond question that the law does not actually go into effect until Jan. 1, 1892, and vessel owners are at liberty to comply with its provisions at any time within the present year, some of the collectors of customs have already gone on ordering the names placed on vessels' bows. In Chicago it is said that five deputies were "detailed on the war path against vessel owners who had not made the change," while a report from Ogdensburg says that the collector at that point has made a ruling of his own, ordering steam vessels to comply with the law immediately and allowing sail vessels to await the proper time for meeting the requirements. Still another hasty blunder is laid to Collector Clark, of Chicago, who is said to have given out a ruling that the names of tugs painted on their pilot houses complied with the law requiring the names of all vessels on both bows.

These blunders on the part of customs officials have worried vessel owners and masters and they have begun to inquire as to the necessity of the law. Some of them are prepared to start a movement for its repeal by the next congress, claiming that there is no need of it and that it is simply following Canada. However this may be, it will probably be well to again inform vessel owners that the law requires that the name of every documented vessel of the United States shall be marked upon each bow as well as the stern, and the home port shall also be marked upon the stern. The names shall be painted, or carved or gilded in Roman letters in a light color on a dark ground, or in a dark color on a light ground, and to be distinctly visible. The smallest letters used shall not be less in size than four inches."

All things considered, it would seem that vessel owners may be saved some trouble by not hurrying themselves in having the names placed on the bows of their vessels, especially steam craft. On the 2nd inst. the MARINE REVIEW wrote William W. Bates, commisioner of navigation, asking him for an opinion regarding the application of the law to steam vessels. It is well known that Section 4495, United States Statutes, calls for the names of steam vessels on their pilot houses Now this later enactment calls for the names on the bows and stern and does not repeal the law regarding pilot house names. Mr. Bates was asked if in his opinion it was necessary for steam vessels to have their names on bows, pilot house and stern and his answer, under date of the 7th, was that "specific instructions upon this particular point have not yet been issued." It is a very "particular" point with every person owning a steam vessel, and it will be readily seen that the Chicago collector who says that " tugs having their names on the pilot house need not have them on the bows," is in advance of his superior officers in Washington.

River Obstructions.

Gen. Poe, of Detroit, Major Stickney, of Buffalo, and Major Overman, of Cleveland, have just concluded a second meeting in Cleveland, the result of which will be of interest to vessel owners at all ports on the lakes. They were called together by the war department to investigate the matter of dock lines and incroachments on the river after the municipal council had changed the dock line ordinance so as permit of dock obstructions to which the citizens objected. The appeal of the citizens to the war department was in accordance with a recent enactment that gives the general government power to protect navigation interests in all navigable streams. The engineer commission has given the Cleveland matter a thorough investigation and their conclusions, when announced, will be of general interest.

In General.

More shortages are being reported from Duluth. The Brazil has 101 bushels to account for.

When a steamer like the Veronica goes light from Milwaukee to Duluth to take on wheat for Kingston 3½ cents the general freight market is certainly on a very low basis.

Wheat stocks at Duluth decreased 1,230,508 bushels last week. The amount in store on Saturday last was 3,834,656 bushels, against 4,044,692 bushels at the corresponding time a year ago.

The new government ranges at Fort Gratiot are electrical, each pole having two lights. In case one light goes out, the other is lighted by a clever mechanical device. The lights are 600 feet apart, the higher one being red and the lower one white.

The citizens of Hancock and Houghton will not build a second bridge across Portage lake as proposed some time ago. Owners of the bridge now in use have offered it to the county for $35,000 and the commissioners in charge of negotiations have decided to recommend the purchase.

The combined cost of the steam whale Joseph L. Colby and tow of three barges, which have just delivered 112,000 bushels of grain at Buffalo, is said to be only $250,000. The tow made the trip from West Superior to Buffalo in 6 days and 6 hours, an average of 7⅛ miles per hour actual running time.

Capt. Dulac, the Mt. Clemens shipbuilder, is again having trouble in getting a boat down the Clinton river. The craft is the propeller Norwarlk, a lumber carrier just launched for Capt. Scott and others. The boat has not been moved more than two miles, although she was launched three weeks ago and tugs have been at work on her for several days. The water has been very low.

Lynn, of Port Huron, suggests that the Canadian government might be induced to place range lights in Sarnia bay to assist vessels in making the channel between Sarnia and the middle-ground, It is about 580 feet from the east side of the shoal to the docks in Sarnia and vessels meeting at this point are greatly crowded. The range lights would prevent accidents, but it is not probable that they will be secured as the middle-ground shoal is being dredged.

A great injustice was done Capt. Duncan McLachlin in saying that he left the Detroit and Cleveland Company because of the accident to the City of Detroit, No. 2. Capt. Duncan McLachlin never sailed the steamer City of Detroit, No. 2, which struck Dougall rock, but has sailed the steamer City of Detroit, No. 1, for the last two years. He was transferred from the steamer City of Detroit, No. 1 to the Greyhound, but this was in no way due to any mishap or bad management on his part. The change was made as much to satisfy the captain himself as anybody else, the Greyhound being as fine an excursion steamer as there is on the lakes. Capt Duncan McLachlin had sailed her previously and was fully familiar with the route and vessel.

Excelsior Marine Benevolent Association.

Following are numbers of the E. M. B. A. who have not paid assessment No. 10: 23, 522, 103, 469, 28, 129, 21, 68, 102, 14, 26, 41, 131, 95, 93, 88, 552, 347, 321, 232, 245, 185, 365, 188, 463, 331, 446, 340. If your number is included please remit at once to the financial secretary, V. O. T. office., Cleveland, O. May 25 is the latest date that this assessment can be received.

Cleveland Matters.

Alex Inglis, foreman of Grover's sail loft, fell into the hold of the Lora and was seriously if not fatally injured.

The Pasadena received her new boilers from the Cleveland Ship Building Company and loaded coal.

In the United States district court Judge Ricks entered a decree for the libelants in the admiralty suit of James I. Wallace and others, owners of the schooner H. A. Kent, against the tugs Patrick Henry and R. K. Hawley. H. F. Carleton will assess the damages. The amount claimed was $1,425.

The William F. Sauber, owned by Mitchell & Co., and recently put forth by F. W. Wheeler & Co., came into Cleveland, Wednesday. She has Frontier engines. Her cabin furnishings are astonishingly pretty and comfortable.

Low Insurance Rates.

The insurance companies made money last year but it is not probable that their profits during the coming season will be encouraging. The attempt of Chicago and Detroit agents to patch up differences has resulted poorly as risks on A1 vessels are now being taken on July rates, and the same rates have been gived in some cases to the A2 class.

Official Numbers and Tonnage.

The following official numbers were assigned lake vessels by the bureau of navigation, W. W. Bates, commissioner during the week ending May 9: Sail—J. B. Comstock, Port Huron, tonnage, 325.61 gross, 306.95 net, No. 76,941; Yama, Oswego, tonnage 11.41 gross, 10.84 net, No. 27,643. Steam—City of Glasgow, Port Huron, tonnage 2,002.86 gross, 1,672.03 net, No. 126,729; E. C, Pope, Detroit, tonnage 2,637.34 gross, 2,064.20 net, No. 136,192. Unrigged—Ice King and Ice Queen, Detroit, tonnage of either 209.42 gross and net, Nos. 44,307 and 44,308 respectively.

Transfers of Vessel Property.

Recent sales of vessel property are: Tug J. S. Blazier, Wickham & Co., Huron, to J. H. Gillette. Marquette, $10.000; tug Leo, William Brown to William A. Angell, $4,875; propeller J. E. Hall, Samuel Hall to R. H. White and John Andrews, Detroit, $23,000; schooner H. C. Potter, Abram Smith to A. Westbrook, Detroit, $3,500.

Our Advertisers.

The question is asked how does the REVIEW issues an illustrated and costly news matter paper 52 times a year for $2.00. We frankly reply that it could not be done without the liberal patronage afforded by our advertisers. You are under obligations to our advertisers, then patronize them whenever opportunity offers. Captains will please notice the fueling advertisements and the wrecking and towing companies' cards. Engineers will please notice our packing and oil advertisements

The Fisher Electric Company is removing the Brush plant of 550 lights from the steamer City of Detroit, now being repaired at the Detroit dry-dock, and will substitute their autmatic dynamos and appliances. When completed the City of Detroit will have the largest and most complete lighting plant on the lakes. The Fisher Electris Company is making a specialty of marine work, and has equipped most of the freight lines with plants.

W. W. Bates, commissioner of navigation, presents an able article on "Trade and Transportation" in a recent number of the National Republican, Washington.

The Erie Railway will adopt summer time schedule, Sunday May 10. Trains will arrive and depart as heretofore, with the following exceptions: No· 62 will depart at 6 a. m, No. 67 will arrive at 12:30 p. m.

The Battle Creek Machinery Company, Battle Creek, Mich., manufacturers of the Marsh steam pump, has been reorganized, and the plant will be enlarged. For the past year night and day forces have been continually employed in order to fill contracts.

Around the Lakes.

Steamer J. Emory Owen had 1,634 bushels of wet wheat at Buffalo.

Contract has been let to dredge the entrance to the front of the east end of the Sault canal.

West Superior is petitioning for marine hospital service and for independent port collector.

Capt. Nils Larson, an early Lake Superior navigator, died a few days ago at Bayfield, Wis., in his fifty-fifth year.

Captains James McGinn, L. J. Riordan and John Griffin are recent additions to membership in the Milwaukee lodge, E.M.B.A.

The old schooner F. W. Gifford, built twenty-two years ago, is being overhauled at Erie. Her improvements will cost $2,000.

With but 329,849 bushels of wheat and 9,794 bushels of corn in store at Toledo, the outlook is not very bright for Lake Erie grain carriers.

Capt. Barker, of Chicago, failed to turn in the licenses of his two tugs to the custom house when they had expired and was fined $50 for each.

Capital stock of F. W. Wheeler & Co., West Bay City, has been increased to $600,000. The company is prepared to build cars, tanks and bridges as well as ships.

The insurance on the lost schooner Atlanta was held by the Union Marine and North American companies, both hull and cargo. She was insured for $15,000.

The schooner Nettie Woodward has been libeled in the sum of $3,000 at Detroit, for damage done to the Western Line steamer Commodore in St. Clair river last week.

Cameron D. and Joshua W. Waterman, who owned the steamer Chenango, burned last summer in Lake Erie, have sued the Greenwich Insurance Company on a $10,000 policy.

The steamboat inspectors at West Bay City decided that they could not inspect the Keweenaw in two sections. She will be inspected after she has been put together at Montreal.

The tugs J. L. Williams, at West Superior, and Canfield, at Manistee, were partly destroyed by fire Saturday The Williams belonged to the Inman Line and the Canfield to the Canfield Line.

The boats of the new Eber Ward Line will run between Duluth and Ogdensburg, and not Duluth and Buffalo. At Ogdenburg they will connect with the Vermont Central for Boston.

The Olympia's wheel chains parted and she sheered into the barge John Sherman opposite Detroit. The Sherman began to fill and was towed to a dock. She was built in 1866 and was valued at $3,500.

The cause given for the foundering of the Atlanta on Lake Superior is that her bulwarks were solid and that when her foremast was unstepped it crashed through her single deck which caused her to fill.

Amended articles of corporation have been filed by Ward's Lake Superior Line. The capital stock of the company is $450,000, all paid in. The offices will be located in Hamtramck, a suburb of Detroit.

The Harvey Lumber Company has sold its fleet, the Badger, DeWolf and Adirondoc. Capt. Brown who sailed the DeWolf many years bought her. She took 40,000 bushels of grain from Chicago to Sarnia for 1½ cents.

The propeller Mackinaw, built at West Bay City for ocean traffic, took a cargo recently from New Orleans to Philadelphia of 16,500 barrels and 500 hogs-heads of sugar, said to be the largest load ever shipped from the big gulf port.

The capital stock of the Dry Dock Navigation Company, recently formed at Detroit is $225,000. The 4,500 shares are divided between James McMillan, Alex.McVittie,Wm. McMillan, Emory Wendell, Hugh McMillan, Frank E. Kirby and Gilbert N. McMillan.

Mr. McCurdy's resignation from the Chicago Board of Underwriters has been the means of fixing up grain insurance rates, his company being allowed a per centage of the business. Rates are as follows: To Lake Michigan ports 25 cents; to Lake Superior 40 cents; to Huron, Sarnia and Detroit river 25 cents; to Georgian bay 30 cents; to Lake Erie 30 cents; to Lake Ontario 40 cents; to Ogdensburg 40 cents; to Montreal 50 cents

Bay City lumber shovers have an agreement that they shall get 40 cents per hour when freights were $1.75 per thousand and 35 cents when freights are less. The men in return for this good treatment will refuse to load boats chartered for less than $1.75.

The Colgate Hoyt with two barges in tow took 78,000 tons of coal from Buffalo to Duluth, all drawing less than 14 feet. The 107 had 2,700 tons. One captain says they make a mile of this whale-back hull at West Superior, and when they want a new boat they saw off 200 or 300 feet and rivet up the ends.

R. W. Owen, manager of the Delta Transportation Com pany, of Chicago, writes H. G. Trout, of King Iron Works, Buffalo, ordering a spare wheel for the steamer Soo City, and says: "I do not think you could better the present wheel. At any rate, it would be dangerous to try it. The present one is very satisfactory."

O. W. Shipman and J. B. Mullikan, of Detroit, are said to have recently purchased ten miles of mineral land adjoining Pikesville, Pa.; also 1,000 acres for about $100,000. It is stated that these parties have organized a stock company to develop this property, construct iron furnace and coke ovens, build a new town, etc.

The Ludlow patent coal distributing bucket is fast coming into favor with dock owners. The latest order is from J. W. Ellsworth & Co., who will use eight of the new ton and a half buckets on their Ashtabula docks. If you are interested in the economical handling of coal, address W. E. Ludlow, 510 Perry-Payne Building, Cleveland.

Capt. Henry Cleary has been put in charge of the Marquette life saving station. There are four stations between the new station and White Fish point: Vermillion, No. 9, ten miles west of White Fish point; Crisp, No. 10, six miles farther west; Two Heart river, No. 11, nine miles west of No. 10; Muscallonge lake or Deer Park, No. 12, eleven miles west of No. 11.

Captain D. P. Dobbins and H. Von Boyer, of the life saving service, completed arrangements for the building of the Ashtabula life saving station. The boat-house will be located on the east pier but on account of there not being room enough on the pier for the boat-house and residence for the men, the latter will be built near the waterworks pumping station on the opposlte side of the river.

Capt. J. S. Dunham, of Chicago, has passed through Buffalo regularly each winter for many years, to visit his aged mother at Troy, N. Y. He would not have missed that trip for a fleet of steel steamers, so much did he love and respect her. Last Thursday he received a dispatch saying his mother had died suddenly. Those who know the good-hearted captain can imagine the heavy heart with which he for the last time set out for the old family home.—Buffalo Courier.

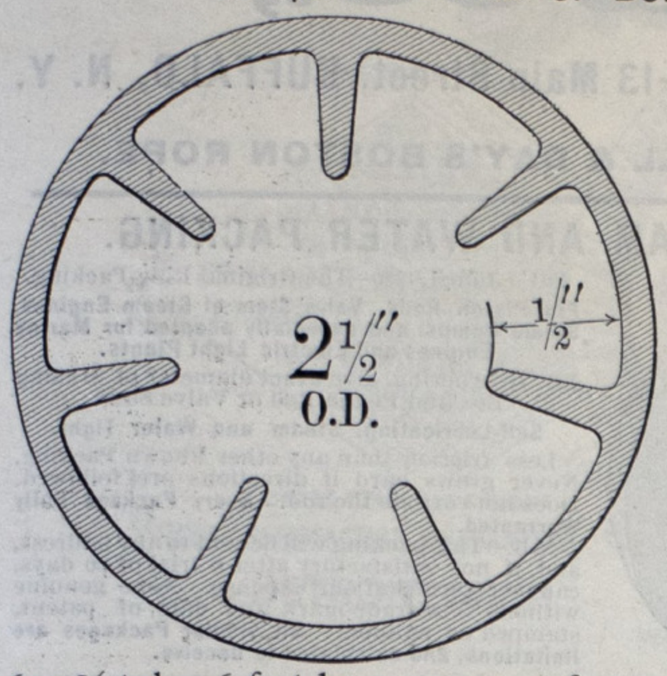
Last year while the Newaygo was fitting out at Marine City a tug overturned a small boat containing a man, woman and three children. One of the men assisting in fitting out the boat rescued the woman and children and the man was picked up. This man writes the REVIEW complaining that he received no medal, "not even a cigar". The complaint is reasonable but when he objects to other persons being rewarded he shows his selfish character. Virtue is its own reward and brave deeds more than satisfy the doer.

Very few vessels will use the natural entrance to West Superior harbor when the channel between Duluth and that place is thoroughly dredged. Boats find difficulty in passing now but dredges now at work will make the channel 100 feet wide Over an hours time is saved by boats bound for West Superior entering at Duluth and then going through the new channel across the bay. This matter has received the attention of the rival cities but Superior people say that Duluth can have the steamers' smoke and they take the cargoes.

Vessel and Machinery Exchange.

Our proposition made several months ago to run three-line notices of vessels or machinery for sale or wanted in the REVIEW gratis, has been accepted by over 60 parties. In several cases this department has been the means of making advantageous sales. The latest addition to this department is a request from Macon, Ga., by parties who want to buy a 60-foot steamer that draws 30 inches loaded. (See page 12.)

Comparative Trial of Boiler Tubes.



An interesting tria was made recently between plain and ribbed boiler tubes at Moore's shipyard, Elizabethport, N. J. The result of the trial showed an economy of 27½ per cent. in favor of the ribbed tube. The boiler used was a usual upright tubular of 42 inch diameter, with 36 inch furnace, 24 inches high and 63-2½ tubes 6 feet long, 7 square feet grate surface, 287 square feet fire surface. These trials occupied twelve days, six with the plain tubes and six with the Serve ribbed tube. Each day's trial lasted 8 hours; 32.35 pounds of wood and 150 pounds of coal were used to start the fire and to raise steam to 70 pounds pressure, after which the trial was immediately commenced. Steam was kept at 70 pounds pressure, and the water level at 7 inches in the glass as nearly as possible, and both were at these points at the end of the trial. Following is a tabulated statement of the results:

Pounds of Coal per 100 Pounds of Water Evaporated.			Economy of coal p. c.	Increase in steam generated
Draft.	Plain tubes.	Ribbed tubes.		
Natural draft ⅛	19.72	13.65	30.83 p. c.	18.03 p. c.
Forced draft ½	16.7	13 21	21.08 p. c	30 97 p. c.
Forced draft ⅞	21.37	14.8	30.74 p. c.	46.46 p. c.

Increase by Serve tubes over plain tubes.	Total evaporation.	Evaporation per lbs. of combus'n	Extreme evaporation.
Natural draft ⅛	18.03 p. c.	57.54 p. c.	8,460 lbs. for plain tube.
Forced draft ½	30.97 p. c.	32.68 p. c.	14,000 lbs. for ribbed tubes.
Forced draft ⅞	46.46 p. c.	46.84 p. c.	Increase 65.5 per ct.

The soot scraped out of the plain tubes after a six days' trial was 2½ pounds. That scraped from the Serve tubes after the six days' trial was 3 pounds.

These tubes are now being placed in the Pennsylvania, of the Keystone line between Philadelphia and Liverpool, and 522 Serve tubes and 6 Purves furnaces are being supplied to the Mascotte, of the Plant Steamship Line. For detailed information write C. W. Whitney, sole agent, 81 Fulton street, New York.

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AGENCIES AT PRINCIPAL PORTS.

Books Received.

"Iron Ores of Minnesota" is the title of as valuable and handsome a book as has been published on the subject of iron ore. It contains dotailed information of different mines on the Vermillion and Mesaba ranges, and the properties of the different ores are shown by lithographed illustrations. By sending twenty-three cents in stamps to N. H. Winchell, Minneapolis, Minn., interested parties will receive a copy of the book.

"Scott's Coast Pilot," corrected to 1891, has been received. It contains a list of all lights, light-houses, fog signals and buoys on the lakes with instructions for entering harbors. The sailing directions are compiled from most reliable sources, and have been tested by forty years' experience in practical sailing. If you have not purchased a copy, write the MARINE REVIEW, and you will receive the book and this paper one year for $3.00.

"Better than Gold" and "Ourselves and Our Neighbors" are titles of two books bound in one volume, written by "Brick" Pomeroy, who, as he tells in this book, has battled fate harder than any other living man. As president of the Atlantic-Pacific Tunnel Company he is on the up-hill road once again. He recently took a party of directors west to look at the property. If you want a copy of his book send one dollar to publishers, 46 Pulitzer Building, New York.

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TO ENGINE AND BOILER MAKERS. — Office of Light-House Engineer, 9th and 11th Districts, Detroit, Mich., May 8, 1891. Sealed Proposals will be received at this office until 4 o clock P. M., of Monday, the 1st day of June, 1891, for furnishing the boilers, machinery, etc., for eight steam fog signals, in sets of two, delivered at the Light-House Depot, Detroit, Mich. Plans, specifications, forms of proposal, and other information may be obtained on application to the undersigned. The right is reserved to reject any or all bids and to waive any defects. WILLIAM LUDLOW, Light-House Engineer.

PROPOSALS FOR CHANNEL EXCAVATION. U. S. Engineer Office, Buffalo, N. Y., April 30th, 1891. Sealed proposals, in duplicate, for excavation of material at the following points, will be received at this office until 2 P.M., on Saturday, the 30th day of May, 1891, and opened immediately thereafter in presence of bidders: Olcott Harbor, N. Y., between the piers, Oak Orchard Harbor, N. Y., between the piers, Niagara River, N. Y., near Strawberry island. The attention of bidders is invited to Acts of Congress, of February 26, 1885, and February 23, 1887, vol. 23, page 332, and vol. 24, page 414, Statutes at Large. Specifications, general instructions to bidders, blank forms of proposal, or necessary information, will be furnished on application to this office. The United States reserves the right to reject any or all proposals. AMOS STICKNEY, Major of Engineers, U. S. Army. May 28,

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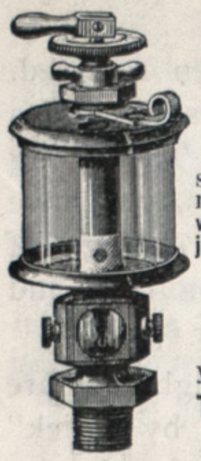

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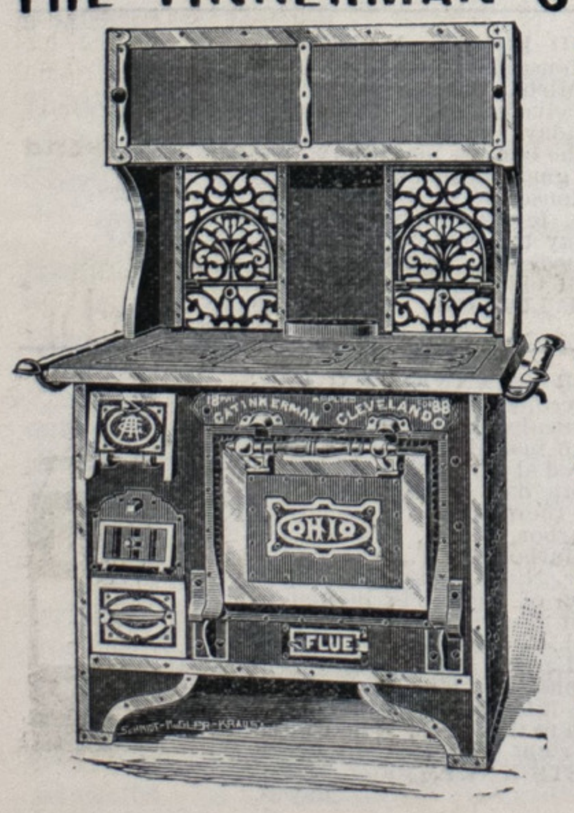

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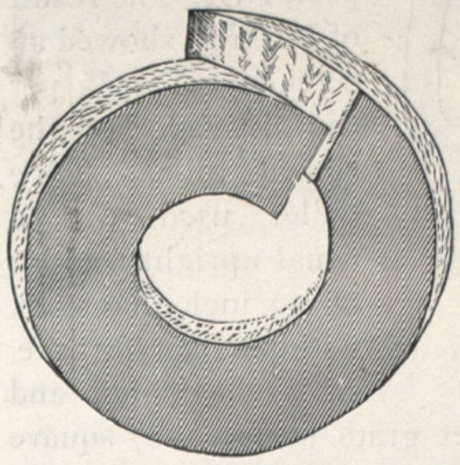

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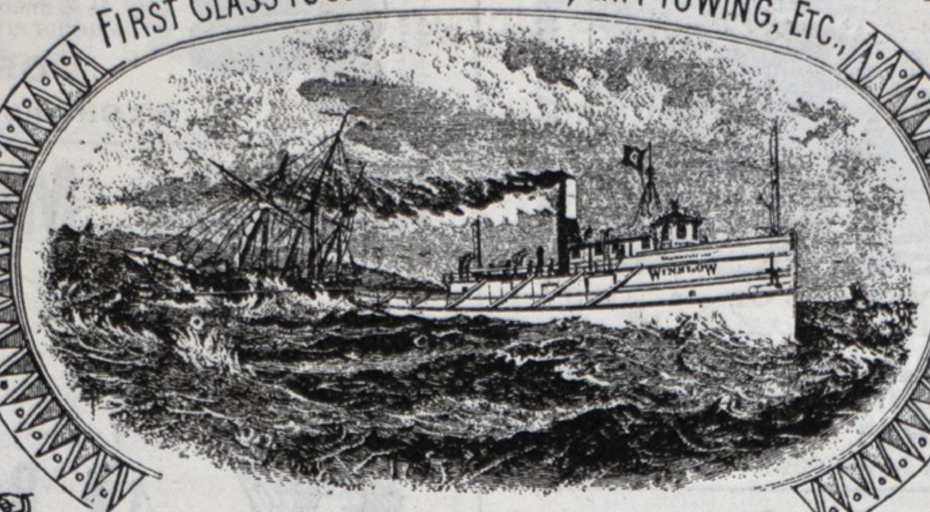

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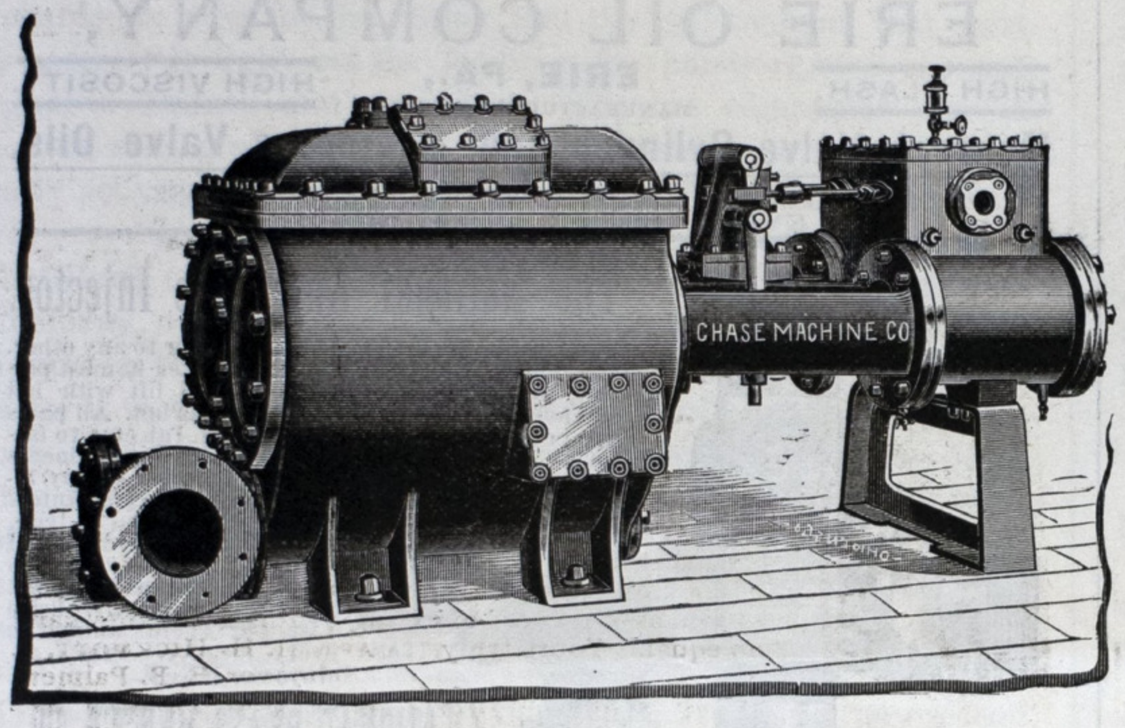

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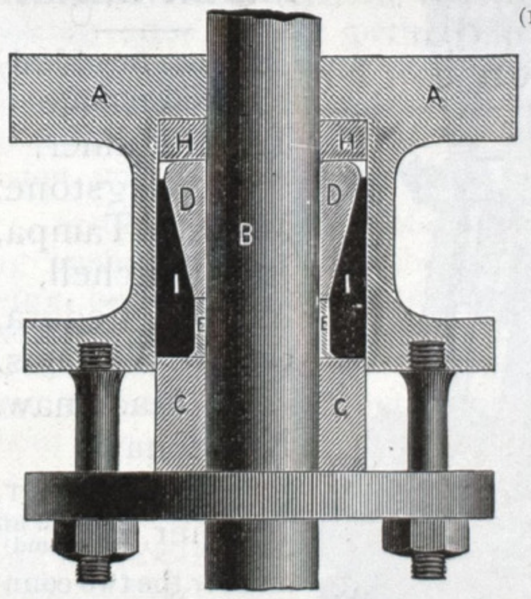

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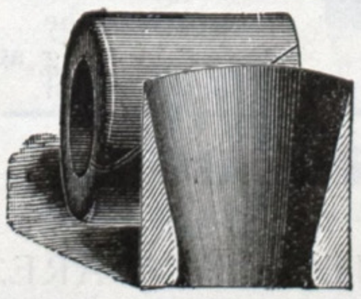

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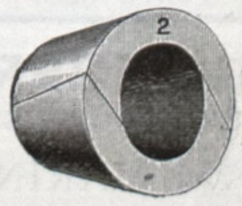

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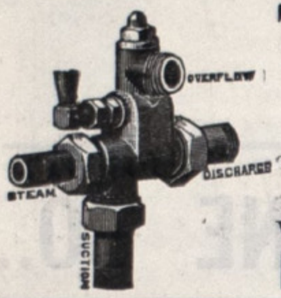

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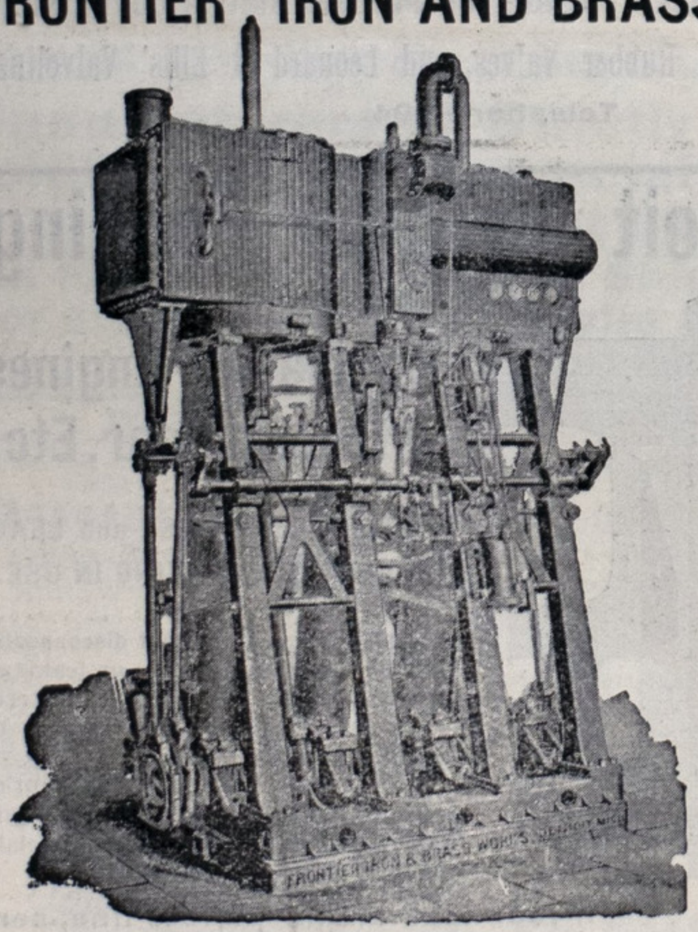

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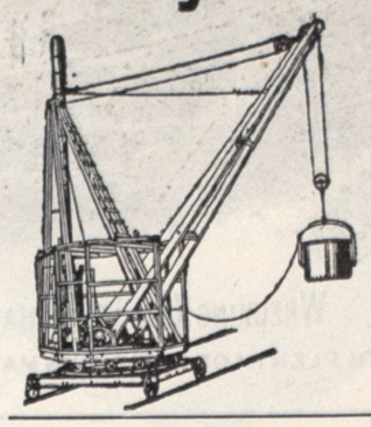

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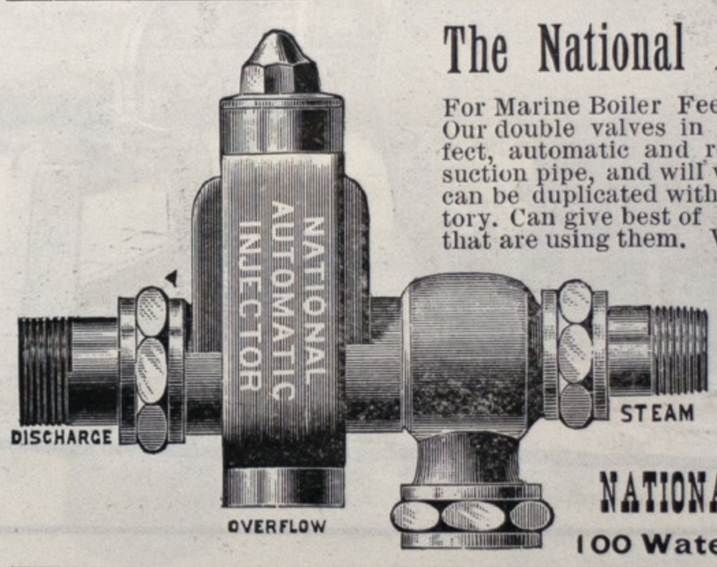

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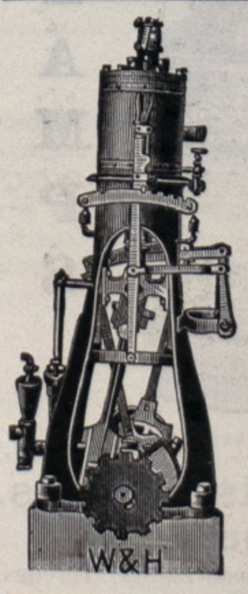

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